

Chapter NR 114

**CERTIFICATION REQUIREMENTS FOR
WATERWORKS AND WASTEWATER TREATMENT PLANT
OPERATORS**

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Note: Chapter NR 114 as it existed on October 31, 1978 was repealed and a new Chapter NR 114 was created effective November 1, 1978.

NR 114.01 Purpose. The purpose of this chapter is to establish rules for the certification of waterworks and wastewater treatment plant operators pursuant to s. 144.025 (2) (1), Stats. No person may operate a waterworks or wastewater treatment plant unless that person holds a valid certificate issued pursuant to this chapter.

Note: Pursuant to s. 144.99, Stats, any person who violates this chapter, shall forfeit not less than \$10 nor more than 55,000 for each violation. Each day of continued violation is a separate offense.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. Register, February, 1984, No. 338, eff. 3-1-84; am. Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.02 Applicability. The provisions of this chapter are applicable to all owners and operators of waterworks and wastewater treatment plants as defined in this chapter.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. Register, February, 1984, No. 338, eff. 3-1-84.

NR 114.03 Definitions. (2) "Certificate" means a printed document issued by the department, pursuant to this chapter, stating that the individual named therein has met the competency requirements for one or more operator grades and subgrades.

(3) "Certified operator" means an individual who has met the requirements of this chapter and has been issued a certificate by the department to operate one or more of the classifications of waterworks or wastewater treatment plants.

(4) "Classification" or "class" means a number assigned to a plant based on a rating system.

(5) "Department" means the department of natural resources.

(6) "Direct responsible charge" means to provide detailed on-site technical direction of the operation of a waterworks or wastewater treat-

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ment plant. Not included in this definition are shift operators or shift supervisors. Also not included are utility managers, city engineers, directors of public works or the equivalent, who are not actually involved in day-to-day operations.

(7) "Experience in the operation of a waterworks or a wastewater treatment plant" means either:

(a) To perform duties that directly affect the treatment process, final effluent or other parameters regulated by permit or

(b) To provide daily on-site technical supervision of the person or persons performing such duties.

(7m) "Grade" means a number assigned to an operator based on an examination system, except that the operator-in-training grade is denoted by the letter "T".

(8) "Industrial wastewater treatment facility" means a privately owned wastewater treatment plant for treating liquid wastes resulting from any process of industry, manufacture, trade or business or the development of any natural resources.

(9) "Land disposal system" means a facility for disposing of liquid wastes consisting of:

(a) An absorption or seepage pond system,

(b) A ridge and furrow system,

(c) A spray irrigation system,

(d) A spray runoff system,

(e) A subsurface field absorption system,

(f) A surface spreading system, or

(g) Any other land area receiving liquid waste discharges.

(10) "Major contributing industry" means an industrial or commercial facility that is a user of a publicly owned wastewater treatment plant, and has a waste which the department determines has, or may have, a significant impact, either singly or in combination with other wastes, on the publicly owned wastewater treatment plant or on the quality of effluent from such plants.

(11) "Municipal water system" means a community water system owned by or a private utility serving a county, city, village, town, town sanitary district, utility district or a county-owned or state-owned public institution for congregate care or correction, which includes but is not limited to correctional institutions, correctional camp systems, county jails or houses of correction, mental health institutes, schools for the handicapped, hospitals, infirmaries and asylums.

(12) "Operate" means to be in direct responsible charge of the operation of a waterworks or a wastewater treatment plant.

(12m) "Operator trainer" means an individual designated by the department to provide specific training at various locations.

(13) "Owner" means the state, county, town, town sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution, association, utility district, school district, joint sewerage commission or individual responsible for providing water or wastewater treatment.

(15) "Secretary" means the secretary of the department of natural resources.

(15e) "Subclass" means a letter assigned a plant based upon the particular type of processes at the facility.

(15t) "Subgrade" means a letter assigned to an operator based on passing an examination for a specific operational process.

(16) "Wastewater treatment plant" means any facility provided for the treatment of sanitary or industrial wastewater or both. The following types of systems are excluded:

(a) Facilities defined as private sewage systems in s. 145.01 (14), Stats.

(b) Pretreatment facilities from which effluent is directed to a public sewer system for treatment.

(c) Industrial wastewater treatment facilities which consist solely of a land disposal system.

(17) "Waterworks" means a municipal water system.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (6), (7), (8), (10), (12), (14) and (16), Register, February, 1984, No. 338, eff. 3-1-84; r. and recr. (4), am. (7), (10) and (11), cr. (7m), (12m), (15e) and (15t), r. (14), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.04 Severability. History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; r. under s. 13.93 (2m) (b) 16, Stats., Register, October, 1985, No. 358.

NR 114.06 Examinations and applications. (1) Examinations and on-the-job experience shall be used to determine knowledge, skill and ability of the applicants to operate a waterworks or wastewater treatment plant. A score of 75% or higher shall be a passing score on each written examination. An individual desiring to be certified shall file an application with the department at least 21 days prior to the established date of a written examination on an application form provided by the department. Fees as outlined in s. NR 114.07 must accompany the application. Applicants shall be notified of their eligibility for examination.

(2) Written examinations shall be conducted week days at least 2 times annually at 3 locations determined by the department.

(3) Written examinations may not be issued to persons who have not properly registered 21 days prior to the examination date, or who fail to identify themselves on request.

(4) Examination papers may not be returned to an applicant nor will there be a provision for review of examinations. Examination papers may be destroyed 30 days after notification of examination results.

(5) Applicants who fail to pass a written examination may apply to the department for reexamination at a subsequent scheduled examination.

(6) The department will provide a list of reference material and objectives pertaining to each examination subgrade process.

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(7) A wastewater treatment plant operator may take subgrade examinations at any grade level, and upon passing the examination will be credited for passing that grade level and all lower grade levels.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1), (2) and (3), cr. (6), Register, February, 1984, No. 338, eff. 3-1-84; am. (1) to (5), r. and recr. (6), cr. (7), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.07 Fees. (1) Fees for certification shall be as follows:

- (a) Written examination administrative fee\$10.00
- (b) Each written examination 5.00
- (c) Biennial renewal-waterworks certificate..... 20.00
- (d) Biennial renewal-wastewater certificate..... 20.00
- (e) Late renewal penalty (per certificate) 20.00
- (f) Reciprocity 40.00

(2) Fees shall accompany the completed application form. There is no limit to the number of examinations that can be taken on one date, but each examination requires the fee listed in sub. (1) (b).

Note: The department recommends that operators attempt no more than 10 wastewater or 4 waterworks examinations on one date.

(3) The renewal fee is due on the expiration date of the certificate. Any renewal application postmarked after the expiration date shall also include a \$20.00 late renewal penalty.

(4) Fees may not be refunded to an applicant who fails to pass a written certification examination or who fails to appear to take the examination.

(5) Renewal fees may be waived by the department to designated operator trainers.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; r. and recr. Register, February, 1984, No. 338, eff. 3-1-84; am. (1) to (4), cr. (5), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.08 Issuance of certificates. (1) Upon satisfactory fulfillment of the qualifications required by this chapter and receipt of the certification fee, the department shall issue a certificate to an applicant indicating the grade(s) for which the applicant has qualified.

(2) Certified operators who desire to become certified in another grade must satisfactorily fulfill the established qualifications and pay the established fees before a new certificate is issued.

(3) Certificates may be issued, without examination, in a comparable grade to any person who holds a certificate in any state, territory or possession of the United States or any country, if in the judgment of the department the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions or intent of these rules and are of a standard not lower than that specified by these rules.

(5) An individual whose certificate has lapsed may be reinstated by paying the biennial renewal fee, fulfilling the continuing education requirements for the lapsed period, and paying a \$20.00 late renewal penalty. An individual may choose to follow the procedures for initial certification.

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(6) All certificates shall expire 2 years from the date of issuance. Certificates may be renewed subject to the requirements of sub. (7).

(7) Renewal requirements. An individual who desires to renew a certificate shall submit evidence of having met the continuing education requirements on record forms approved or provided by the department for approved training courses or other credit which they have successfully completed during the 2-year period. These may include, but are not limited to, courses sponsored by the department or any university or technical school, technical sessions at meetings of professional organizations, in-house training and correspondence courses. Failure to successfully complete and document the appropriate number of hours of approved training within the 2-year period shall result in rejection of a certificate renewal application. Wastewater operator grades 1 and 2 require 12 hours, and grades 3 and 4 require 16 hours. Water supply operators require 12 hours.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (3), (5), (6) and (7) and r. (4), Register, February, 1984, No. 338, eff. 3-1-84; am. (2), (5) and (7), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.09 Sanctions. The department may, on its own motion, make investigations and conduct hearings and may, on its own motion or on a signed and verified written complaint, revoke, suspend or refuse to renew as provided in this section any operator's certificate or reprimand the operator if the department finds that the holder of the certificate has:

(a) Made a material misstatement in the application for certification or any application for a renewal of certification, or

(b) Demonstrated incompetence to operate the type of facility for which the certificate was issued, or

(c) Bypassed a discharge at a wastewater treatment plant in violation of the plant's WPDES permit without notifying the department, or

(cm) Has not complied with any other provision requiring department notification in the facility's WPDES permit, or

(d) As the individual in direct responsible charge of the operation of a waterworks, failed to notify the department of a violation of a maximum contaminant level as required in ch. NR 109, or

(dm) Failure to provide public notification of a violation of ch. NR 109, or

(e) Falsified any monitoring, or operating or other records submitted to the department, or provided by the department, or

(f) By intentional or negligent action, caused or significantly contributed to a violation of any provision of ch. 144 or 147, Stats., or any administrative codes, permits or orders adopted or issued under those chapters.

(2) Notice of revocation of, suspension of or refusal to renew a certificate shall be served on the certified operator and shall state the reasons for revocation, suspension or refusal to renew.

(3) Revocation of, suspension of or refusal to renew a certificate shall take effect on the 10th day after the notice is served, unless the certified operator files a written answer with the department prior to the 10th

day. If such an answer is filed, the revocation, suspension or refusal to renew is stayed and the department shall conduct a hearing on the matter within 30 days after receipt of the answer. At least 10 days prior to the date of the hearing, the department shall send a written notice to the operator indicating the date, time and location of the hearing. The final determination of the department, including the basis for the decision, shall be provided in writing to the operator. A suspended operator may not be the operator in charge of a facility for the duration of the suspension.

(4) Application may be made for taking the necessary examinations for a new certificate one year after the date of revocation or refusal to renew.

(5) Any order revoking or suspending a certificate is subject to judicial review as provided in ch. 227, Stats.

Note: The purpose of the following 2 charts is to aid in understanding of this code. It shows 1) the relationship between grades and subgrades, and plant classes and subclasses; 2) the progression in operator grades (from left to right); and 3) the required experience needed to get to the next higher grade.

Wastewater

Operator Grades and Plant Classes

	T	1 Yr Exp	1	2 Yr Exp	2	3	3 Yr Exp	4
General Knowledge								
A								
B								
C								
D								
E								
F								
G								
H								
I								
J								
K								
L								

Waterworks

Operator Grades and Plant Classes

		T	1 Yr Exp	I
Subgrades Subclasses	G			
	Z			
	I			
	L			
	S			
	D			
	V			

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1) (intro.), (c) and (4), r. and recr. (1) (f) Register, February, 1984, No. 338, eff. 3-1-84; am. (1) (intro.) and (e), (2) to (5), cr. (1) (cm) and (dm), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.10 Classification of wastewater treatment plants. (1) Each wastewater treatment plant shall be assigned a class based upon a system of rating values and shall be assigned one or more subclasses based on the operations performed at that plant.

(2) Items to be rated and their assigned values are:

- (a) Design flow is greater than 1 MGD 1 Point
- (b) Plant uses 4 to 7 of the processes listed in sub. (3) (a) through (i) 1 Point
- (c) Plant uses more than 7 of the processes listed in sub. (3) (a) through (i) 2 Points
- (d) Treatment required is based on water quality limits for an industrial wastewater treatment facility 1 Point
- (e) Treatment, including seasonal effluent limits, required for biochemical oxygen demand and suspended solids is more stringent than specified in s. NR 210.05 (1) for a nonindustrial wastewater treatment plant 1 Point
- (f) Receives wastewater from a major contributing industry 1 Point

Classification

Class 1	0 Points
Class 2	1 Point
Class 3	2 Points
Class 4	3 to 5 Points

(3) Subclasses are:

(a) Primary settling

(b) Trickling filters and rotating biological contactors

(c) Activated sludge

(d) Stabilization ponds and aerated lagoons

(e) Disinfection

(f) Anaerobic digestion

(g) Sludge handling including but not limited to mechanical dewatering, heat treatment and incineration. This subclass is not required for land disposal or drying beds

(h) Filtration

(i) Phosphorus removal by chemical addition

(j) On-site laboratory testing for BOD or suspended solids

(k) Subclass K. Special — generally for treatment plants using chemical or physical treatment, or both.

(l) Subclass L. Electroplating and metal finishing.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1), (2) (b), (c), (d) and (e) and (3) (a), (g) and (k), Register, February, 1984, No. 338, eff. 3-1-84; am. (2) (c) and (e), (3) (k), cr. (3) (l), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.11 Qualifications of wastewater treatment plant operators. (1) Five grades and eleven subgrades of wastewater treatment plant operators are hereby established. To qualify for certification in a given grade and subgrade, an individual must meet the appropriate experience and examination requirements for that grade and pass the applicable examination(s) for the subgrade at that level.

(a) Grade T. Pass the written grade 1 or higher examination for a given plant subclass and the written examination of the general knowledge necessary to operate a class 1 or higher wastewater treatment plant.

(b) Grade 1. One year of satisfactory experience in the operation of a given plant subclass plus pass a written examination, grade 1 or higher, of the general knowledge necessary to operate a class 1 wastewater treatment plant and a written examination, grade 1 or higher, of the individual's ability to perform routine operational duties for the given plant subclass.

(c) Grade 2. Completion of grade 1 requirements plus one additional year of satisfactory experience in the general operation of a wastewater treatment plant plus pass a written examination, grade 2 or higher, of the general knowledge necessary to operate a class 2 wastewater treatment plant and a written examination, grade 2 or higher, of the individual's ability to perform routine operational duties for the given plant subclass.

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ual's ability to identify and correct common operating problems involving the given plant subclass.

(d) Grade 3. Completion of grade 2 requirements, including 2 years of satisfactory experience in the general operation of a wastewater treatment plant plus pass a written examination, grade 2 or higher, of the general knowledge necessary to operate a class 3 wastewater treatment plant and a written examination, grade 3 or higher, of the individual's ability to identify and correct less common operating problems involving the given plant subclass.

(e) Grade 4. Completion of grade 3 requirements, including one additional year of satisfactory experience in the general operations of a wastewater treatment plant, plus pass a written examination, grade 4, of the general knowledge necessary to operate a class 4 wastewater treatment plant and a written examination, grade 4, of the individual's ability to identify and correct complex operating problems involving the given plant subclass.

(2) Operator subgrades are the same as plant subclasses listed in s. NR 114.10 (3).

(3) Upon a change in a wastewater treatment plant's classification caused by any changes as listed in s. NR 114.10, the operator-in-charge shall have 12 months to pass necessary examinations and will be allowed time to obtain the required experience.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1) (intro.) to (d) and (2), Register, February, 1984, No. 338, eff. 3-1-84; renum. (1) (a) to (e) to be (1) (b) to (e) and (a) and am. cr. (3), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.12 Classification of waterworks. The classification of each waterworks shall be class 1 and assigned one or more of the applicable subclasses based on the operations performed at that plant.

(1) Class G. All waterworks utilizing a ground water source.

(2) Class Z. All waterworks providing zeolite softening or specific contaminant removal by resins.

(3) Class I. All waterworks providing iron removal by oxidation and filtration.

(4) Class L. All waterworks providing treatment by the lime-soda ash process for iron removal and/or softening.

(5) Class S. All waterworks utilizing a surface water source.

(6) Class D. All waterworks containing a distribution system.

(7) Subclass V. All waterworks providing special treatment such as, but not limited to, air stripping, granular activated carbon or others.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; renum. (1) to be (intro.) to (6) and am. (intro.) and (2), cr. (7), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.13 Qualification of waterworks operators. (1) Two grades and 6 subgrades of waterworks operators are hereby established. To qualify for certification in a given grade and subgrade, an individual must meet the appropriate experience requirement and pass the applicable examinations for the subgrade.

(a) Grade T. Pass the written grade 1 examination for the given waterworks subclass.

(b) Grade 1. One year of satisfactory experience in the operation of the given waterworks class plus pass a written examination of the individual's ability to perform routine operational duties and identify and correct operating problems involving the given waterworks subclass.

(2) Operator subgrades are the same as waterworks subclasses listed in s. NR 114.12.

(3) Upon a change in a waterwork's classification caused by any changes as listed in s. NR 114.12, the operator-in-charge shall have 12 months to pass the necessary examinations and will be allowed time to obtain the required experience.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; renum. (1) (a) and (b) to be (1) (b) and (a) and am., am. (2), cr. (3), Register, August, 1988, No. 392, eff. 9-1-88.

NR 114.14 Required grades for the operation of waterworks and wastewater treatment plants. (1) **WASTEWATER TREATMENT PLANTS.** (a) The individual in direct responsible charge of the operation of a subclass of a treatment plant listed in s. NR 114.10 (3) must hold a valid certificate for the corresponding subgrade at a grade the same as, or higher than, the plant class, except as provided in pars. (b) to (d).

(b) An individual certified as a wastewater treatment plant operator at least at the grade 1 level for a plant subclass may be in direct responsible charge of that subclass of a class 2, 3, or 4 treatment plant for a period not to exceed 2 years, provided that the department is satisfied with the operator's progress towards full certification and that the facility is in compliance with all terms and conditions of its permit.

(c) An individual certified as a wastewater treatment plant operator-in-training may operate that subclass of a treatment plant for a period not to exceed one year, provided that the department is satisfied with the operator's progress towards full certification and that the facility is in compliance with all terms and conditions of its permit.

(cm) The total time allowed for all individuals at a facility under pars. (b) and (c) may not exceed 2 years.

(d) An individual certified as a wastewater treatment plant operator may be in direct responsible charge of a plant one class higher than the grade of the operator's certificate, provided that:

1. The operator has made an earnest effort to pass the required written examinations. Earnest effort shall include having attempted to pass the necessary written examinations at least 3 times over a 2-year period and having attended applicable training courses during the 2-year period.

2. The operator is certified to at least the grade 1 level for the required subclasses.

3. The plant has met effluent limitations based upon the sewer extension criteria in s. NR 110.05.

4. The operator has demonstrated proper operation and maintenance of the plant.

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5. The operator in direct responsible charge of the wastewater treatment plant was employed in that capacity on March 1, 1984.

(2) WATERWORKS. (a) The individual in direct responsible charge of the operation of a class of waterworks listed in s. NR 114.12 (1) must hold a valid certification for the corresponding subgrade at the grade 1 level, except as provided in par. (b).

(b) An individual certified as a waterworks operator-in-training may operate that class of waterworks for a period not to exceed one year.

Note: It is recommended that a second operator hold a valid certificate at a grade the same as, or higher than, the plant classification.

History: Cr. Register, October, 1978, No. 274, eff. 11-1-78; am. (1) (a) to (c), (2) (a) and (3), cr. (1) (d), Register, February, 1984, No. 338, eff. 3-1-84; am. (1) (b), (c) and (d) 1., cr. (1) (cm), renum. (3) to be NR 114.15, Register August, 1988, No. 392, eff. 9-1-88.

NR 114.15 Operator in charge. The owner of each waterworks and wastewater treatment plant shall designate to the department the operator in direct responsible charge as required in s. NR 114.14 (1) and (2).

History: Renum. from NR 114.14 (3) and am., Register, August, 1988, No. 392, eff. 9-1-88.